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## A Corpus-Driven Study of Near-Synonymous Command Verbs Used in a Military English Context

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### Abstract

This professional interest study analyses the near-synonymous verb pairings ‘move’ and ‘go’ and ‘fire’ and ‘shoot’ as employed in a military English context. Reference data was provided via a specialized military English corpus, which was compiled and measured against the Santa Barbara Corpus of Spoken American English using the Sketch Engine lexicographical tool. In the case of ‘move’ and ‘go,’ findings suggest that differences in lexical behavior patterns may be explained primarily in terms of pronoun subject/object sentence structures. While ‘move’ predominantly features pronouns that act as sentence objects, ‘go’ is shown to incorporate subject pronouns. Moreover, both verbs are shown to collocate with themselves, conceivably evidencing their use as a motivational tool, a position echoed in a number of Sketch Difference categories. The behavioral differences between the verb-object collocational patterns of ‘fire’ & shoot,’ meanwhile, suggests that the verb form of ‘fire’ is associated predominantly with the action and directional application of weapons, while ‘shoot’ primarily serves to indicate specific targets that have/are to be fired upon. The conclusions of the Sketch Difference phase are strengthened by the findings of collocational and concordancing analyses, which also highlight the importance of contextual knowledge in regard to idiomatic language and verb usage.

**Key words:** Corpus Analysis, Concordancing, Military English, English for Specific Purposes

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## INTRODUCTION & FOCUS OF INQUIRY

In recent years, the analysis of specialized electronic language corpora has developed into a burgeoning component of English for specific purposes (ESP) inquiry; notably providing researchers with enhanced descriptions of genre-specific language function and, crucially, facilitating the development of specialized language syllabi and pedagogical interventions (Gabrielatos, 2005). Regardless of educational or vocational setting, however, ESP instruction has concentrated primarily on the propagation of texts which are, above all, authentic to their respective focus. To be more precise, Dudley-Evans & St. John (1998) describe the absolute characteristics of ESP as encompassing the following: the meeting of specific learner needs, the implementation of underlying methodologies and activities which are appropriate to the discipline that they serve and, finally, be centered on language that is suitable for these specific undertakings in terms of grammar, lexis, register, study skills, discourse, and genre (pg.4-5).

Given a dearth of available literature, Military English (ME) is a strand of ESP inquiry primed for corpus-based study. The influential role of English as a *lingua franca* is none more apparent than in military settings. With the ongoing geopolitical environment dictating that armed conflict has become a genuinely globalized endeavor – stretching beyond the traditional confines of national borders, or indeed, the concept of nation itself (Orna-Montesinos, 2013). Consequently, the rapid expansion of NATO has witnessed English language proficiency emerging as an increasingly necessary professional competence for those militaries that wish to maintain operational compatibility as part of (often NATO-led) multinational coalition forces.

As described by Piehler (2013), military language is a complex phenomenon that not only facilitates communication in uncertain environments but solidifies a distinctly hierarchical structure while simultaneously generating a shared sense of identity among service personnel. Specifically, the language used in military settings encompasses a range of linguistic phenomena, with principal features including acronyms and abbreviations, bureaucratic jargon, honorifics, specialized terminologies, and idioms and euphemisms (Piehler, 2013, 759). While these features may serve distinct and potentially disparate purposes, they collectively facilitate the conveyance of information expeditiously and in a comprehensible and precise manner between service personnel.

The importance of this process is none more overt than during the issuing of combat commands. Logically, the key component of any command is the verb: it denotes the action or actions which are to be implemented, and its level of intensity can determine the overall significance of the order. Moreover, while synonymous

verbs may present a degree of interchangeability, the issuer must pay close attention to context and the rigid nature of military terminology if they are to avoid confusion. Unsurprisingly, foreign language learners may view the subtle nuances that surround synonymy as a substantial language generation quandary. Lexical items that initially appear to be appropriate synonym choices may, for instance, delicately contrast in both denotation and connotation (Inkpen & Hirst, 2006). With their inappropriate use potentially modifying the intended meaning or implication of a command, thereby undermining its semiotic efficiency (Taylor, 2003).

While all ESP genres are, by their very definition, niche, ME has failed to become the focus of concentrated inquiry and is thus the subject of a comparatively underdeveloped body of research. As a consequence, it is the intention of this small-scale investigation to describe the behavior and semantic usage differences among a selection of key military command verbs and their closest identified synonyms, a focus hitherto unexplored by corpus linguistics. By ascertaining fresh insights into the semantic differences between each corresponding verb, it is hoped that any information highlighted by this pilot study will result in an enhanced understanding of command verb usage and subsequently inform future ME corpus-based research and instructional content at non-native speaking military training institutions.

## **LITERATURE REVIEW**

### **Corpus Analysis**

A corpus may be viewed as “a collection of authentic language, either written or spoken, which has been compiled for a particular purpose” (Flowerdew, 2012, p.3). Typically, corpora are categorized into one of two distinct groups: general and specialized. While general corpora are perceived as prototypical, characteristically serving to provide an overall description of the behavior of their respective languages; in contrast, specialized corpora are domain or genre specific, and are often created to answer explicit hypotheses. While corpora may be generated and investigated for a myriad of possible reasons, the field of corpus linguistics ultimately serves to identify the specific patterns associated with the use of particular lexical or grammatical features, and how those patterns differ within, and between, varieties and registers of languages (Bennet, 2010).

### **Synonymy**

The issue of synonymy has been richly debated, with the notion of ‘absolute synonymy’ (i.e., semantically equivalent units that share identical meanings and are interchangeable across all contexts) perhaps providing the most discussion (Chung, 2011). Over time, such instances have come to be commonly viewed (see: Taylor,

2003) as exceedingly rare, leading researchers including Lyons (1996), Cruse (2002), & Inkpen & Hirst (2006) to propose a scale of equivalence that includes a classification for those words which are not fully interchangeable. Thus, the term ‘near-synonym’ was conceived, and became widely accepted in lieu of the comparatively nebulous ‘synonym.’

While the analysis of semantic equivalence presents a range of possible corpus-based investigative focuses, it has been noted (Divjak & Gries, 2006; Uba, 2015) that corpus-based inquiries into near-synonymy are still somewhat in their infancy. Notable studies on the subject do exist, however. Including those by Taylor (2003), who analyzed the distribution of adjectives in terms of their co-extension relations – specifically observing the effect on nouns which had been modified by the non-contrastive near-synonymous adjectives ‘high’ and ‘tall’; and by Divjak & Gries (2006), who used hierarchical agglomerative cluster analysis to address the scale of variation amongst near-synonymous Russian verbs via the Behavioral Profile approach. While these investigations differ in scope from the intentions set out by this inquiry, they nevertheless offer useful insights into the diverse methodologies used by linguists during corpus-based analyses of near-synonyms.

## METHOD

### Collection of Corpus Data

The creation of an authentic military language corpus was perhaps the greatest challenge to this investigation given its particular focus and the distinct paucity of appropriate source material. The majority of available literature consists of military journals and obsolete training manuals and, while detailed lists of genre-specific vocabulary are accessible, their use to this study is negligible given that sources typically act as a glossary only, resulting in their failure to describe the functional behavior of lexical items. It was decided, therefore, to focus solely on language *spoken* by a specific native English-speaking country’s ground combat arm (i.e., the army or marines). The selection of the United States (US) military as a source of corpus data was somewhat prerequisite, given the nation’s position as the world’s pre-eminent superpower and continued driver of contemporary military intervention and conflict.

The retrieval of corpus data involved collating several transcripts taken from US-produced war movies and television programs (for a full list of sources, see Appendix A). To ensure that the source materials accurately portrayed combat language, first or second-hand written accounts of combat serve as the material of origin for 92% of the titles used during this study. In an effort to enhance authenticity, transcripts were supplemented by unscripted dialogue taken from a

selection of short videos depicting authentic combat footage, as featured on the video sharing site, YouTube (see Appendix A). Furthermore, it was decided that World War 2 would be the earliest portrayed conflict to contribute to the corpus to maintain a connection to a contemporary or near-contemporary setting. The process of generating a specialized military language corpus, meanwhile, entailed the use of Sketch Engine (SE), a prominent lexicographical tool (Kilgarriff et al., 2014). Specifically, the ‘create corpus’ function – which allows users to upload and convert a source text document – was employed; with the subsequent corpus consisting of 202,156 words and 274,549 tokens.

### **Analysis Procedures**

Reference Corpora (RC) are bodies of text that provide comprehensive data sets connected to specific languages. RC may be used for comparative purposes to identify domain-specific words within a specialized language corpus, with those items that occur with an unusually high statistical frequency referred to as ‘keywords’ (Scott, 2008). Typically, the log likelihood statistical measure is used to classify a word’s ‘keyness’ value, with a critical score of 15.13 and above consistent with a p-value of  $<0.0001$ , or a 99.99% confidence that the word did not appear by chance (Anthony, 2014 a). Several corpus analysis programs provide keyword identification functions; however, this investigation utilized the AntConc tool (Anthony, 2014 b) due to its relative ease of use, availability, and reliability.

Naturally, the selection of an appropriate RC is of critical significance if generated keywords are to reflect their host domain accurately. Separate investigations by Xiao & McEnery (2005) & Scott (2009) indicate that size does not have a significant bearing on an RC’s functional viability; with both studies suggesting that a selected RC’s content is more important than its scope. Given that the target corpus consists of dialogue spoken predominantly by Americans, it was necessary that the chosen reference corpus be consistent with this format. Thus, the Santa Barbara Corpus of Spoken American English (SBCSAE; Du Bois et al., 2005), a 249,000-word corpus of naturally occurring American speech, was selected as the study’s RC. Finally, all corpus analysis measures were once again executed using SE (Kilgarriff et al., 2014), including thesaurus, sketch difference, concordancing, and collocational analyses, the details of which may be found below.

## **FINDINGS AND DISCUSSION**

### **Identification of Key Verbs & Near-Synonyms**

Figure 1 lists the top twenty generated keywords of the targeted corpus, as compared to the SBCSAE RC. ‘Keyness’ is ranked using the log likelihood

statistical measure, with all displayed values far exceeding the 15.13 minimum cut-off for statistical significance. Although general discourse items such as the pronouns *I*, *we*, & *it* appear as keywords, it is immediately apparent that the list is bestrewn with terms commonly associated with military dialogue, thereby providing evidence to suggest that the specialized corpus accurately reflects its target genre.

#Types Before/After Cut: 10,938 (Total # of keyword entries: 1,952)

Rank	Frequency	Keyness	Keyword	Part of Speech
1	1166	2035.792	sir	Noun
2	1673	1373.115	I	Pronoun
3	630	1016.774	fucking	Adj./intensifier
4	620	974.889	fuck	Interjection
5	578	767.315	move	Verb
6	582	746.247	shit	Noun/interjection
7	1521	738.039	your	Pronoun
8	3075	720.824	we	Pronoun
9	722	668.004	man	Noun
10	413	627.081	fire	Verb/noun
11	1618	618.694	get	Verb
12	7019	559.844	you	Pronoun
13	295	541.641	hitman	Noun
14	2200	537.697	on	Preposition
15	322	530.598	it	Pronoun
16	868	499.865	let	Verb
17	484	498.268	hey	Interjection
18	825	476.620	come	Verb
19	366	466.291	men	Noun
20	274	458.053	sergeant	Noun

Figure 1 The top 20 keywords of the military English corpus

Most notably, the list is bookended by the hierarchical terms of rank *Sir* & *Sergeant*, while *man* & *men*, the singular and plural forms of the noun representing combat age males are also present. In this instance, the noun *hitman* denotes a radio call sign commonly attached to US ground infantry units. Additionally, while not strictly ME dialogue, the ‘colorful’ language often associated with the armed forces is represented by several obscenities which, interestingly, all appear within the top six – perhaps symbolizing the hectic nature of combat and the relevance of interjections and intensifying language in such scenarios. Nevertheless, while this information helps inform the overall description of English language use within a military context, it is the activity of verbs that are of relevance to this investigation. Consequently, the top twenty contains five examples, with the highest scoring instances *move* & *fire* appearing in fifth and tenth position, respectively. Logically, these verbs are of significance when issuing combat commands and therefore

appropriate areas of focus for this study.

Figure 2, meanwhile, details words that have displayed analogous grammatical and collocational behavior with key verbs, as determined by SE's distributional thesaurus function. In both cases, the indicated results were among the most frequently identified near-synonyms of the targeted items. However, given the automatic distributional nature of the thesaurus' compilation procedure, it should be noted that several higher-ranking verbs were discounted due to their obvious lack of synonymy.

<b>Verb</b>	<b>Synonym</b>	<b>Freq.</b>	<b>Score</b>
<b>Move</b>	<b>Go</b>	<b>1,910</b>	<b>0.196</b>
<b>Fire</b>	<b>Shoot</b>	<b>270</b>	<b>0.173</b>

Figure 2 Target verbs & their near-synonyms

### Sketch Difference

Figures 3 & 4 present a summation of each verb pairing's grammatical performance within the ME corpus, grouping each entry by its respective structural rankings, as compared to its recognized near-synonym (for a full glossary of headings and terms, see Appendix B). Fundamentally, SE's Sketch-Diff function facilitates the visual comparison of paired words according to their salient collocational context, thereby aiding in the identification of features which may be more typical of, or unique to, each verb (Kilgarrieff et al., 2014). While green entries correspond with the first assigned lemma; red items complement the second. The higher the LogDice score of each, the higher the level of correlation between the verb and its collocate.

### 'Move' & 'Go'

The results described in figure 3 indicate that each verb's syntactic patterns differ somewhat within a military context. Moreover, it is immediately noticeable that occurrences of the near-synonym *go* significantly outnumber its targeted key verb. By way of illustration, the 'object' pattern displays 32 collocational tokens of *move*, compared to *go*'s 167; with the highest-rated object collocations of each emphasizing the potential contextual disparities between near-synonyms. For instance, an order to move a casualty represents an entirely different connotation to an order to go to a casualty, a pattern that continues when the previous object token is substituted for *go*'s equivalent collocate *home*.

It is apparent that the use of *move* is arranged around pronouns that act as a sentence object, as demonstrated by the potentially idiomatic command *move it* and the decidedly more literal *move them/him*. These patterns indicate that move-



pronoun/move-object sentence structures are primarily employed to direct the relocation of designated items or individuals or, in the case of *move it/your ass*, a means of instilling motivation. Contrastingly, dialogue that features *go* as a command verb regularly incorporates subject pronouns such as *you* & *I*, whereas the plural *they* & *we* are mutual collocates of both verbs. A shared focus on pluralized pronouns is perhaps unsurprising given that field orders are characteristically used to direct several groups of soldiers at a time, regardless of verb selection.

Interestingly, the ‘particle up/down + object’ & ‘modifier’ categories variously demonstrate that directional prepositions/adverbs of advancement such as *up* & *forward* collocate with *move*, while their opposing pairings *down* & *back* collocate with *go*. This pattern is not repeated with *ahead*, possibly due to the resultant *go-ahead*’s typical application as a signal to proceed. The data contained within the ‘modifier’ grouping indicates that the majority of directional adverbs are associated with *go*, a pattern that continues with prepositions of movement; as evidenced in the ‘particle intransitive’ category. In this instance, *move out* is the only deviation from the pattern (although the level of correlation is relatively weak given that it is a

**move/go** Military English freqs = 497 | 1,910

move	6.0	4.0	2.0	0	-2.0	-4.0	-6.0	go
and/or	17	177	0.60	1.70				
move	12	2	13.5	9.0				
go	1	126	9.0	13.5				
shit	0	2	—	8.5				
get	0	4	—	9.4				
come	0	5	—	10.0				
let	0	22	—	12.1				
object	32	167	0.70	1.00				
casualty	2	0	10.4	—				
ass	2	0	9.1	—				
man	4	4	8.7	8.2				
people	2	5	9.0	9.3				
thing	0	2	—	7.7				
marine	0	2	—	8.1				
day	0	2	—	8.2				
doc	0	2	—	8.5				
buddy	0	2	—	8.5				
talk	0	2	—	8.5				
meter	0	2	—	8.6				
peck	0	2	—	8.6				
avol	0	2	—	8.6				
blackburn	0	2	—	8.6				
sir	0	4	—	8.9				
guy	0	4	—	9.0				
baby	0	1	—	9.1				
year	0	1	—	9.1				
sarge	0	1	—	9.1				
bob	0	1	—	9.1				
boy	0	6	—	9.8				
way	0	8	—	9.8				
home	0	45	—	12.4				
part_up_obj	3	4	5.60	2.00				
talk	0	1	—	12.8				
part_down_obj	2	1	17.00	2.30				
line	2	0	14.0	—				
subject	41	178	1.70	2.10				
keep	2	0	12.1	—				
murphy	2	0	10.9	—				
gun	2	0	10.3	—				
jap	2	0	10.0	—				
division	2	0	9.7	—				
l	2	22	5.7	9.0				
shit	0	2	—	8.3				
brother	0	2	—	8.3				
kid	0	2	—	8.4				
friend	0	2	—	8.4				
unit	0	2	—	8.4				
bullet	0	2	—	8.4				
han	0	2	—	8.5				
grenade	0	2	—	8.5				
@card@	0	2	—	8.5				
morale	0	2	—	8.5				
kaseem	0	2	—	8.5				
tour	0	2	—	8.5				
hell	0	1	—	8.6				
people	0	1	—	8.6				
i	0	4	—	8.7				
convoy	0	2	—	9.0				
bear	0	2	—	9.1				
war	0	5	—	9.4				
fuck	0	8	—	9.8				
part_intrans	96	119	20.60	7.00				
out	86	20	12.3	10.1				
up	5	14	8.3	9.7				
around	0	2	—	10.0				
through	0	5	—	10.1				
over	0	5	—	10.1				
in	0	5	—	10.2				
off	0	15	—	11.1				
down	0	24	—	11.7				
on	0	24	—	11.7				
modifier	38	263	0.50	0.90				
up	2	0	8.3	—				
forward	2	2	10.3	7.9				
fast	2	2	10.3	7.9				
now	3	2	9.3	9.2				
back	5	29	8.8	11.1				
not	12	28	6.5	9.2				
just	2	18	6.6	9.3				
else	0	2	—	7.9				
first	0	2	—	7.9				
all	0	4	—	8.0				
ever	0	1	—	8.1				
only	0	1	—	8.1				
together	0	1	—	8.4				
far	0	1	—	8.4				
never	0	5	—	8.5				
again	0	4	—	8.6				
then	0	4	—	8.7				
right	0	4	—	8.7				
down	0	4	—	8.9				
straight	0	4	—	8.9				
away	0	5	—	9.0				
easy	0	5	—	9.2				
there	0	5	—	9.3				
anywhere	0	8	—	9.9				
ahead	0	16	—	10.9				
pp_across	2	1	17.50	2.40				
airfield	2	0	13.0	—				
pp_through	1	13	4.00	14.30				
tunnel	0	2	—	12.1				
town	0	4	—	12.5				
pp_around	1	2	8.30	4.50				
corner	0	2	—	13.0				
pro_subject	72	524	1.40	2.80				
they	8	19	7.5	8.3				
it	10	33	7.8	9.1				
we	42	161	8.8	10.6				
he	4	41	6.5	9.5				
i	2	81	4.2	9.3				
you	2	159	3.9	10.1				
them	0	4	—	7.8				
she	0	2	—	8.2				
me	0	2	—	8.5				
him	0	11	—	9.3				
pro_object	120	2	5.70	0.00				
them	2	0	8.7	—				
him	5	0	7.9	—				
it	108	2	11.0	5.4				
pp_to	8	96	3.40	11.30				
base	2	2	11.4	9.2				
site	0	2	—	9.3				
battalion	0	2	—	9.4				
world	0	2	—	9.4				
beach	0	2	—	9.4				
px	0	2	—	9.4				
bed	0	2	—	9.4				
hell	0	1	—	9.9				
school	0	5	—	10.7				
war	0	8	—	11.3				
pp_into	16	25	29.80	12.70				
position	1	0	12.2	—				
hill	1	0	11.9	—				
hut	2	0	11.8	—				
ridge	2	0	11.7	—				
combat	0	2	—	11.0				
pattern	0	2	—	11.2				
battle	0	1	—	11.5				
town	0	1	—	11.7				

Figure 3 Collocational comparisons of the verbs *move* & *go*

prominent collocation of both verbs), which is somewhat understandable given that, like go-ahead, this particular verb-particle combination results in a commonly used phrasal verb.

It is the ‘preposition into’ grouping that presents the most even distribution pattern, meanwhile. Here, data indicates that move frequently collocates with specific locations such as *position*, *hill*, *hut*, & *ridge*, while go’s noun combinations are somewhat more varied, as in the case of *combat*, *pattern* & *battle*. Despite these differences, however, several categories do depict the near-synonyms sharing several syntactical patterns. In the ‘and/or’ grouping, for instance, both move & go are observed to collocate repeatedly with themselves, with the presence of verb repetition conceivably evidencing their use as a motivational tool, a position echoed in the ‘modifier’ category’s singular shared adverb *now*. To conclude, while instances of near-synonym switching are naturally apparent, these findings indicate that move is associated primarily with commands that are intended to relocate their object nouns while go is used to direct the specific movement patterns of soldiers. It should be noted that both verbs appear to serve as motivational aids, making them crucial components of ME dialogue.

### ‘Fire’ & ‘Shoot’

Figure 4 depicts the collocational differences between the verbs *fire* & *shoot*. Although it is once again noticeable that occurrences of the identified near-synonym greatly outnumber its corresponding keyword, the behavior of this verb pairing is relatively unambiguous. Expressly, the verb form of fire is associated predominantly with the action (whether that be the weapon itself or the subject facilitating the weapon’s action) and directional application of weapons. However, while shoot also describes the physical action of using a firearm, it primarily serves to indicate specific targets that have/are to be fired upon. By way of illustration, the ‘object’ category demonstrates that nouns forming the object of fire are categorized chiefly as weapons or small arms ordnance. Contrastingly, shoot’s objects are identified as nouns that may be explicitly targeted (i.e., *prisoner*, *traitor*, & *civilian*). Interestingly, it seems that the verbs may be somewhat interchangeable if the target is non-specific, as in the case of the shared collocates *someone* & *people*.

Shoot’s pattern of association with nouns designated as targets continues in the ‘preposition in’ category, however objects are now a subject’s specific bodily area (*head*, *neck*, *vitals*, & *spine*) or locations in which the action occurred/will occur (*sector*, *Holland*, *truck*, & *Olympics*). Furthermore, the ‘modifier’ group indicates that fire is, predictably, employed as a means of guiding fire control orders. Here, the modifying adverbs are either used to direct fire (*south* & *there*) or, as in the case of the previous verb pairing, customarily identified as a method of intensifying

the severity and urgency of an order (*now*). While *never* & *not*, adverbs used to express negation, are interchangeable collocates of both verbs. Interestingly, the ‘particle intransitive’ category lists the directional adverbs *up*, *down*, & *off* as collocates of shoot only, once again highlighting the potential for variability between near-synonyms. Nevertheless, in this instance, the absence of *fire up/off* as key phrases in the ME corpus is wholly understandable, given their principal function as phrasal verbs unrelated to directional application.

Finally, data contained within the ‘pronoun subject’ pattern highlights a distinct imbalance among subject personal pronoun use. While several pronouns do collocate across both verbs (to varying degrees of significance), this activity is predominantly the domain of shoot, with 78 occurrences compared to fire’s 11. The comparative scarcity of personal pronouns occurring as the subject of fire reinforces the view that the verb is associated primarily with direct commands and the actions of weapons; however, there are also enough instances to illustrate further the potential malleability and complexity of near-synonym use.

### fire/shoot

Military English freqs = 52 | 270

fire 6.0 4.0 2.0 0 -2.0 -4.0 -6.0 shoot

object	25	81	3.90	2.70
shot	5	0	11.2	--
weapon	5	0	11.0	--
bullet	2	0	11.0	--
missile	1	0	10.3	--
eee	1	0	10.3	--
k.	1	0	10.1	--
grenade	1	0	9.6	--
side	1	0	9.5	--
rifle	1	0	9.4	--
gun	1	0	8.9	--
mortar	1	1	9.6	8.4
someone	1	2	9.4	9.3
people	2	2	9.1	10.3
people	0	1	--	8.8
wild	0	1	--	8.6
prisoner	0	2	--	9.1
hole	0	2	--	9.2
kid	0	3	--	9.5
chris	0	2	--	9.5
traitor	0	2	--	9.6
hamlet	0	2	--	9.6
mexicans	0	2	--	9.6
camel	0	3	--	10.1
dog	0	4	--	10.2
chvilian	0	5	--	10.9
part_intrans	1	10	1.40	3.10
upon	1	0	13.4	--
up	0	1	--	7.8
down	0	2	--	8.9
off	0	5	--	10.5

subject	7	46	2.00	2.80
reservist	1	0	11.5	--
ship	1	0	11.2	--
keep	1	0	10.9	--
city	0	1	--	9.2
cobra	0	1	--	9.3
will	0	1	--	9.3
asshole	0	1	--	9.4
oughtta	0	1	--	9.4
zaitsev	0	1	--	9.4
love	0	1	--	9.4
girlfriend	0	1	--	9.4
militia	0	1	--	9.4
butcher	0	1	--	9.4
sentry	0	1	--	9.4
chris	0	1	--	9.4
-he	0	2	--	9.4
-one	0	1	--	9.4
ancestor	0	1	--	9.4
beagles	0	1	--	9.4
head	0	2	--	10.0
island	0	2	--	10.1
speirs	0	2	--	10.1
trombley	0	2	--	10.2
hold	0	3	--	11.0
ass	0	4	--	11.1
part_trans	2	5	4.00	2.20
out	1	0	6.6	--
up	1	3	6.6	8.1
down	0	1	--	7.8
down	0	1	--	8.3

modifier	13	49	1.10	0.90
south	1	0	10.7	--
there	2	0	8.2	--
now	1	0	7.9	--
even	1	1	8.0	7.7
never	2	2	8.3	8.1
not	5	20	5.3	7.3
just	1	8	5.6	8.6
up	0	1	--	7.2
back	0	2	--	7.4
ever	0	1	--	7.9
really	0	1	--	7.9
again	0	1	--	8.1
then	0	1	--	8.3
probably	0	1	--	8.5
actually	0	1	--	8.9
yet	0	1	--	9.0
accidentally	0	1	--	9.3
only	0	3	--	9.5
straight	0	2	--	10.1
will	0	2	--	10.3
pp_from	1	1	7.10	1.50
vehicle	1	0	14.0	--
distance	0	1	--	14.0
pp_by	1	2	15.60	6.70
ship	1	0	14.0	--
sentry	0	1	--	13.4
trombley	0	1	--	13.4
part_up_obj	1	1	12.50	2.70
computer	1	0	14.0	--
technicals	0	1	--	14.0

pro_subject	11	78	1.40	2.20
us	1	0	8.7	--
you	5	18	5.2	7.1
i	1	2	3.2	6.0
we	2	15	4.5	7.3
they	2	20	5.5	8.8
one	0	1	--	8.4
he	0	17	--	8.6
pp_at	2	6	13.60	8.80
shape	1	0	13.4	--
people	1	0	12.7	--
everybody	0	1	--	12.2
anybody	0	1	--	12.2
patrol	0	1	--	12.2
target	0	1	--	12.2
marines	0	1	--	12.2
scrap	0	1	--	12.2
pp_in	1	12	1.60	4.10
combat	1	0	11.5	--
head	0	1	--	10.7
direction	0	1	--	10.8
sector	0	1	--	10.8
holland	0	1	--	10.8
truck	0	1	--	11.0
neck	0	1	--	11.1
turn	0	1	--	11.3
pattern	0	1	--	11.3
olympics	0	1	--	11.3
vitals	0	1	--	11.3
spine	0	2	--	12.2

Figure 4 Collocational comparisons of the verbs *fire* & *shoot*

## Collocational & Concordancing Analyses

SE's collocation function generates and ranks a series of words that systematically co-occur with their corresponding verb, with results potentially adding credence to the findings described during the previous section. Concordancing, meanwhile, expands on each specified key word's surrounding contextual factors (Du Bois, 2005). Given that searched items produced multiple instances of said behavior, it was decided to limit each verb to randomly generated examples by employing SE's 'sample' utility. This function not only organized results into a more manageable format but presented a pool of samples that were lacking in bias.

### 'Move' & 'Go'

Upon viewing figure 5, it is evident that the observed behavior serves to strengthen various conclusions made during the previous analysis phase. Specifically, both verbs are shown to collocate with themselves and each other, demonstrating a high level of synonymy and emphasizing their importance as motivational tools. A factor that is evidenced further by move's collocates '*keep*, *let's* & *it*' and go's shared collocate '*let's*,' which is also its highest-rated item.

Move					Go				
Rank	Collocates	PoS	Freq	LogDice	Rank	Collocates	PoS	Freq	LogDice
1	move	Verb	<u>248</u>	12.382	1	let's	Verb	<u>468</u>	12.448
2	out	Adv	<u>162</u>	11.440	2	go	Verb	<u>457</u>	11.885
3	keep	Verb	<u>93</u>	11.416	3	to	Prep	<u>491</u>	11.361
4	let's	Verb	<u>120</u>	11.335	4	be	Verb	<u>1051</u>	11.233
5	go	Verb	<u>170</u>	10.992	5	move	Verb	<u>171</u>	10.996
6	it	ProN	<u>159</u>	10.383	6	we	ProN	<u>301</u>	10.947
7	on	Prep	<u>114</u>	10.307	7	on	Prep	<u>242</u>	10.893
8	up	Adv	<u>81</u>	10.280	8	it	ProN	<u>217</u>	10.438
9	come	Verb	<u>59</u>	10.022	9	get	Verb	<u>203</u>	10.422
10	we	ProN	<u>111</u>	9.912	10	you	ProN	<u>369</u>	10.411
11	get	Verb	<u>97</u>	9.776	11	come	Verb	<u>125</u>	10.376
12	down	Adv	<u>35</u>	9.674	12	out	Adv	<u>127</u>	10.375
13	be	Verb	<u>268</u>	9.390	13	up	Adv	<u>129</u>	10.298
14	your	ProN	<u>45</u>	9.338	14	the	Art	<u>339</u>	10.285
15	the	Art	<u>143</u>	9.253	15	I	ProN	<u>210</u>	10.201

Figure 5 The top 15 collocates of the verbs *move* and *go* in the Military English corpus

Interestingly, only three lexical items are shown to be unique to each verb, further highlighting their worth as near-synonyms. In contrast to the Sketch

Difference analysis, figure 5 describes the prepositions/adverbs ‘*up & down*’ as collocating with *move*, their previously-defined oppositional verb. Moreover, the examples featured in Figure 6 indicate that commands featuring *move* are employed principally as a means of inspiring soldiers to relocate expeditiously, an urgency illustrated by numerous instances of verb repetition and consistent use of motivational phrases. Whilst a high level of synonymy between *move* & *go* is represented by several examples of verb switching/mixing.

Keep	<u>moving!</u>	Easy, easy, easy. Thank you, soldier.
Move! Go, go, go! Move out! Let's	<u>move</u>	out! Let's go! Move out! Keep moving!
Let's go! Get him on his feet! Keep	<u>moving!</u>	You're okay! Come on! Come on!
They have us targeted! Move!	<u>Move!</u>	Move! Let's go! Go! Come on!
Shoot anything that	<u>moves.</u>	They'll be coming from over there.
Private Pyle? Get up and over! Move it,	<u>move</u>	it! Are you quitting on me?
Reinforce Alpha Company there! Now!	<u>Move!</u>	Follow me!
He's right here! Let's go!	<u>Move!</u>	Let's move! Move! Oh, shit. Come on!
Stay with me, stay... C'mon on	<u>move!</u>	Keep going! Ain't get up!
Remember, once you 're in the boat	<u>move</u>	away from the rope.

Figure 6 A random selection of 10 concordances of the verb *move*

Figure 7 establishes a similar pattern of urgency and interchangeability between near-synonyms, with the behavior of *go* consistent with the findings of the sketch analysis phase. Crucially, the verb is once again shown to collocate with itself, while a pattern of associating with directional adverbs and prepositions of movement is also evidenced. However, the example of *go around* further highlights the importance of contextual knowledge concerning idiomatic language and verb usage – drawing attention to an area of study that could prove beneficial to non-native military personnel and language learners in general.

Stupid, stupid, stupid.	<u>Go.</u>	go. They're bombing Eindhoven. Yeah?
Suppressing fire! -Go,	<u>go.</u>	go! Keep moving! Let's go! Let's go!
Let's	<u>go.</u>	Somebody's been hit!
All right, looks like I'm	<u>going</u>	Down there.
Move! - Son of a bit... - Let's	<u>go!</u>	Are those Jap prisoners?
Maddox, look at these jerks! These idiots!	<u>Go.</u>	go! Right, Maddox, right!
Vietnam... where we would	<u>go</u>	11 years later.
Gathering up men - to	<u>go</u>	to, uh... Ramelle... Ramelle.
We have two minutes. I ain't	<u>going</u>	up that hill.
No, there's not enough to	<u>go</u>	around!

Figure 7 A random selection of 10 concordances of the verb *go*

### ‘Fire’ & ‘Shoot’

Figure 8 demonstrates that fire & shoot’s collocates present more variety than the previous verb pairing, with each synonym possessing ten unique collocational items. Interestingly, the top collocate of both verbs is a form of ‘shoot’; while this presents another instance of verb repetition in the latter, it seems more likely that fire collocates with the noun form, further evidencing the verb’s attachment to nouns that describe weapons or ordnance. Contrastingly, shoot is shown to collocate chiefly with nouns and pronouns that describe physical targets (including examples of obscenity which conceivably describe enemy combatants).

Upon viewing Figure 9, it is apparent that the contextual behavior of fire once again describes the physical action and directional application of firearms. Interestingly, two of the final three samples demonstrate fire being used as both a verb and noun, specifically in relation to fire control orders. While the behavior of nouns is not a primary concern of this investigation, these examples nevertheless shed light on the overall lexical performance of a pre-established ME keyword, thus identifying another potential area for future focus. Finally, Figure 10 illustrates that shoot is a conduit for defining the physical action of using a weapon, most notably in the description of object targets. Specifically, of the ten examples listed, seven verbs are attached to object nouns and pronouns which describe (whether implicitly or explicitly) human targets.

Fire					Shoot				
Rank	Collocates	PoS	Freq	LogDice	Rank	Collocates	PoS	Freq	LogDice
1	shot	Noun	<u>6</u>	10.466	1	shoot	Verb	<u>24</u>	10.479
2	weapon	Noun	<u>5</u>	9.991	2	at	Prep	<u>36</u>	10.207
3	mortar	Noun	<u>3</u>	9.778	3	him	ProN	<u>26</u>	9.773
4	at	Prep	<u>11</u>	8.814	4	dog	Noun	<u>8</u>	9.696
5	never	Adv	<u>3</u>	8.758	5	people	Noun	<u>12</u>	9.684
6	people	Noun	<u>3</u>	8.451	6	civilian	Noun	<u>7</u>	9.588
7	us	ProN	<u>6</u>	8.015	7	they	ProN	<u>31</u>	9.300
8	who	ProN	<u>3</u>	7.784	8	us	ProN	<u>17</u>	9.185
9	so	Adv	<u>4</u>	7.781	9	he	ProN	<u>29</u>	9.126
10	fire	Verb	<u>3</u>	7.663	10	fuck	Intj	<u>25</u>	9.097
11	sir	Noun	<u>4</u>	7.147	11	why	Adv	<u>9</u>	9.090
12	your	ProN	<u>6</u>	6.968	12	bastard	Noun	<u>5</u>	9.069
13	not	Adv	<u>12</u>	6.931	13	motherfucker	Noun	<u>6</u>	9.046
14	my	ProN	<u>4</u>	6.902	14	not	Adv	<u>50</u>	8.904
15	can	AuxV	<u>3</u>	6.891	15	off	Adv	<u>9</u>	8.898

Figure 8 The top 15 collocates of the verbs *fire* and *shoot* in the Military English corpus

Blithe. That's right, Blithe. You can do it.	<u>Fire</u>	your weapon, Blithe.
At least I	<u>fired</u>	my weapon.
Do not... I say again, do not	<u>fire</u>	to the east. We are coming to you.
It's not like... just	<u>firing</u>	at a distant shape, not just a uniform.
Be prepared to	<u>fire!</u>	On my command!
Private Snowball reporting, sir! You 're	<u>fired!</u>	Private Joker is promoted to squad leader.
It makes a distinctive sound when	<u>fired</u>	at you, so remember it. Move out.
No. No cease fire. Hold it up there	<u>firing</u>	at our people. Hold it up! Stop it!
Shit, I guess they 're not in there	<u>firing</u>	at us then.
Covering fire! Covering fire! Keep	<u>firing</u>	south! Fire!

Figure 9 A random selection of 10 concordances of the verb *fire*

I'm gonna shoot you, you fucking Kraut!	<u>Shoot</u>	him, we'll have to come back for more.
They're	<u>shooting</u>	that hamlet in error! Laser on. Spot.
And we don't fucking	<u>shoot</u>	unarmed kids. Where did this happen?
Why aren't you	<u>shooting?</u>	- We're not being shot at yet!
Want to waste her, go on... waste her.	<u>Shoot.</u>	We'll have to put you up for the CMH.
The fucking weapons! I'll shoot you! I'll	<u>shoot!</u>	Drop! Drop! Drop 'em! Now!
He says please don't	<u>shoot.</u>	- I don't care, Upham.
What happened to him? He was	<u>shot</u>	in the head. Half-hour ago.
That's what happens when you	<u>shoot</u>	someone, you motherfucker!
There's already enough people	<u>shooting!</u>	One bullet and this thing goes up.

Figure 10 A random selection of 10 concordances of the verb *shoot*

## CONCLUSIONS & LIMITATIONS OF STUDY

This professional interest study proposed a quantitative, corpus-driven examination of two near-synonymous key verb pairings, as featured in a ME context. Given this is one of the first studies of its type, it is hoped that the methodology and findings presented here will serve to strengthen the still youthful field of ME inquiry, specifically with regards to analyses of ME-specific lexical behavior. The results of this investigation indicate that, while both pairings have displayed a significant level of synonymy (perhaps more so in the case of *move* & *go*), clear instances of specific lexical behavior are also apparent. Specifically, the results of the 'move' and 'go' analysis suggest that lexical behavior differences can be elucidated chiefly in terms of pronouns featuring respectively as either objects or subjects of each verb. Regarding 'fire' & 'shoot,' meanwhile, verb-object collocational patterns suggest that 'fire' is linked predominantly with the action and directional use of firearms, while 'shoot' serves to indicate specific targets. Additionally, both verb sets are shown to collocate significantly with themselves and their identified near-synonym, credibly demonstrating their use as a motivational tool.

Consequently, the findings of this investigation indicate that pre-existing contextual knowledge concerning the utilization of each key verb is fundamental to delivering clear and precise combat orders. This process is most apparent with regards to the use of idiomatic language, with this analysis highlighting numerous instances of language use that may confuse those unaware of the intricacies of phrasal verbs. Considering both the significance and complexity of near-synonym use within a military context and the distinct paucity of established literature on the subject, it is also clear that this focus of lexical semantics could provide a rich depository of future research. Ultimately, this study does not claim to be comprehensive and recommends that subsequent examinations focus primarily on a broader number of verb sets, and the distinction between command and phrasal verbs in regard to near-synonym implementation. Numerous instances of idiomatic language use were identified throughout this investigation, with it being clear that phrasal verb usage could obfuscate an already complex language generation issue for second or foreign language users.

Furthermore, though great lengths were taken to ensure that the ME corpus accurately reflected its target genre, the reliance on scripted spoken dialogue as a basis of corpus material is far from ideal, no matter the integrity of the original sources. While this feature of the investigation was born out of necessity rather than choice, there is a possibility that results may be viewed as weak given the relative scarcity of strictly naturally-generated language. Despite this, the results of stage 4 ultimately proved this inquiry's corpus collection methods to be a suitable alternative to the collation of exclusively naturally occurring military dialogue. Nevertheless, it is advised that any future studies add further credibility to their methodologies by increasing the employment of first-hand instances of spoken ME, if possible.

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## APPENDIX

### Appendix A: Corpus Sources

Portrayals of Combat: Total: 3,159 minutes (52.7 hours)

American Sniper (132 minutes)*	Band of Brothers (10 episodes: 705 minutes)*
Black Hawk Down (144 minutes)*	Flags of Our Fathers (131 minutes)*
Full Metal Jacket (116 minutes)**	Generation Kill (7 episodes: 470 minutes)*
Hamburger Hill (112 minutes)*	Heartbreak Ridge (130 minutes)**
Hurt Locker, The (131 minutes)	Lone Survivor (121 minutes)*
Pacific, The (10 episodes: 540 minutes)*	Platoon (120 minutes)**
Saving Private Ryan (169 minutes)*	We Were Soldiers (138 minutes)*

\*Denotes titles portraying first-hand written accounts of combat

\*\*Denotes source material written by combat veterans

Authentic Combat Footage: Total: 37:49

COMBAT FOOTAGE: Soldiers Ambushed In Kunar Province (8:49) Retrieved from:

<https://www.youtube.com/watch?v=faog1Cbu-ow>

Special Operations Helmet Cam Firefight in Afghanistan (11:10) Retrieved from:

<https://www.youtube.com/watch?v=IPxue9WezPI>

BRITISH SAS AND US MARINES IN FIREFIGHT WITH TALIBAN 2011 (3:58) Retrieved

from: <https://www.youtube.com/watch?v=01v0sUra-yg>

Bullets Whiz Close Over M 240 B Gunner During Firefight (2:30) Retrieved from:

<https://www.youtube.com/watch?v=ncxkFzaBqPo>

FIREFIGHT ON HELMET CAM IN AFGHANISTAN – PART 1 (11:22) Retrieved from:

<https://www.youtube.com/watch?v=uZ2SWWDt8Wg>

## Appendix B: Cambridge Sketch Engine—Headings used in the Word Sketch

<b>a_modifier</b>	adjectives that modify the search word (noun)
<b>adj_comp</b>	adjectives that follow the search word
<b>adj_comp_of</b>	verbs that take the adjective as a complement (e.g. in <i>the sky has turned blue</i> , <i>blue</i> is a complement of the verb <i>turn</i> )
<b>adj_subect_of</b>	adjectives which the search word (noun) is the subject of, preceding the verb <i>to be</i>
<b>adj_subject</b>	nouns that form the subject of the search word (adjective), usually preceding the verb <i>to be</i>
<b>and/or</b>	words of the same part of speech that conjoin with the search word using <i>and</i> , <i>or</i> , or a comma
<b>infin_comp</b>	verbs that follow the search word in the infinitive form
<b>ing_comp</b>	verbs that follow the search word in the present participle ( <i>-ing</i> ) form
<b>it+</b>	shows when the search word (noun or adjective) is frequently preceded by <i>it + to be</i> (e.g. <i>it's a boy</i> , <i>it's hard</i> )
<b>modifier</b>	adverbs that modify the search word (verb or adjective)
<b>modifies</b>	nouns that the search word (noun or adjective) modifies
<b>n_modifier</b>	nouns that modify the search word (noun)
<b>np_adj_comp</b>	adjectives that follow the search word and an object noun phrase
<b>np_adj_comp_of</b>	verbs that take an object followed by the adjective as a complement (e.g. in <i>We dyed the shirt blue</i> , <i>blue</i> is a complement of the verb <i>dye</i> )
<b>object</b>	lists the nouns that form the object of the search word (verb)
<b>object_of</b>	the verbs that the search word (noun) is the object of
<b>part_[particle]-x_obj</b>	when the search word is followed by a particle [particle], this lists the nouns that follow the particle (e.g. <b>part_down-x_obj</b> lists nouns that follow the search word and the particle <i>down</i> )
<b>part_intrans</b>	lists the particles that follow the search word with no object
<b>part_trans</b>	lists the particles that follow the search word, and take an object
<b>passive</b>	shows when a verb occurs significantly in the passive form*
<b>possessed</b>	nouns that follow the search word (noun) and 's
<b>possessor</b>	nouns that precede 's and the search word (noun)
<b>pp_[prep]-i</b>	when the search word is followed by the preposition [prep], this lists the nouns that follow the preposition eg <b>pp_across-i</b> lists nouns that follow the search word and the preposition <i>across</i>
<b>predicate</b>	nouns that form the predicate of the search word (noun) (eg in the result was a relief, <i>result</i> is the predicate of <i>relief</i> )
<b>predicate_of</b>	nouns which the search word (noun) forms the predicate of
<b>pro_object</b>	pronouns that occur as the object of the search word (verb)
<b>pro_subject</b>	pronouns that occur as the subject of the search word (verb)
<b>reflexive</b>	shows when a verb occurs significantly in the reflexive form*
<b>subject</b>	lists the nouns that form the subject of the search word (verb)
<b>subject_of</b>	the verbs that the search word (noun) is the subject of
<b>wh-comp</b>	wh-words (what, when, where etc) that follow the search word